



CANDLEWOOD LAKE AUTHORITY

P.O. BOX 37 • SHERMAN, CONNECTICUT 06784-0037 • (860) 354-6928 • FAX (860) 350-5611

Minutes of Meeting April 14, 2010

Attending:

R. Stroh	New Fairfield
B. Kemble	New Fairfield
H. Mayer	New Milford
M. Toussaint	New Milford
R. Guendelsberger	New Milford
E. Siergiej	Danbury
G. Dufel	Danbury
C. Reppenhagen	Sherman
H. Berger	Sherman
P. Schaer	Sherman
J. Murphy	Brookfield

Absent:

F. Cioffi	Brookfield
P. Callahan	New Fairfield
M. Calandrino	Danbury

L. Marsicano, CLA Executive Director
F. Frattini, CLA Administrative Coordinator
M. Howarth, CLA Public Education Director

Recorder R. Stroh

Guests: D. Gilbert, Danielson, CT, CT Bass Federation Nation
Peter Hall, Danbury

Howie Berger, Chairman, called the regular meeting of the Candlewood Lake Authority to order at 7:35 P.M. at Brookfield Town Hall, Brookfield, CT.

Secretary's Report: Rich Stroh, Secretary, noted that there was one correction to the minutes of March 10, 2010 in the first paragraph Jerry Murphy is the new delegate from Brookfield. Ed Siergiej moved to accept the minutes as corrected, seconded by Bruce Kemble and voted with all in favor, minutes have been accepted.

Chairman Howie Berger asked Executive Director Larry Marsicano to report. He noted that his report is attached to these minutes and he then reviewed a few items: The second in the series of seminars at WesConn Science at Night included Eleanore Mariani of DEP Boating, Tim Barry of DEP Fisheries and Mr. Marsicano who shared data they have collected on the lake's boating issues. The seminar was well received and it was a good exchange of information. Planning for the next seminar for June is underway. The CLA submitted to FERC during the comment period wherein the CLA reinforced concerns of overcrowding, user conflict, buffer language and to establish a working relationship with the Utility, FirstLight. He reported that

BY: 

DEP and the National Park Service had also commented. He believed a motion to modify and approve should be coming shortly. In the comments to FERC it was noted that the CLA is supportive of the SMP with modifications. Mr. Marsicano called attention to the study of the structures around the shoreline noting that the study revealed at least 6,500 structures on the shoreline of Candlewood, this was sent to FERC with the submittal. He also noted that the Technical Committee as required under the FERC license had met to discuss the mapping of weeds in last year's (2009) report. He called their attention to the report on drawdown that was done by the CLA noting that from 1985 to 1995 the lake was down by January 1st and kept down for around 60 days which appear to have resulted in better weed management results than those in recent years. That should be the model for future drawdowns.

Phyllis Schear arrived at 7:45 PM

Finally he reported on a CT Federation of Lakes Capacity Building Grant that has been awarded to the New Fairfield Candlewood Watershed Initiative Group to mark the storm drains around the New Fairfield area of the lake. The money will come to the CLA for the purchase of the materials and CLA will continue to help and oversee. Mr. Berger noted that no financial contribution would come from the CLA, but rather our contribution would be in the form of our assistance. Phyllis moved to accept the grant on behalf of the CWI, seconded by Jerry Murphy and voted with all in favor.

Mark Howarth, Public Education Director reported that planning for the Dragon Boat Race (August 21, 2010) is under way. Planning meetings have begun, on April 1st sponsorship letters went out to previous Clean-Up sponsors. This year's sponsorship opportunities for the Cleanup and the DBR have been bundled. DBR posters should be ready by next month's CLA meeting. The Dragon Boat Website can be reached on the Lake Authority's website – check it out. This year registration discounts will be given for early registrations: by June 15th – \$75/ per person; by July 15th – \$85/per person and by August 2nd – \$95/per person – a \$100 deposit for the team must be received by the above date.

Mark Toussaint noted that Mark Howarth has done a great job organizing the Dragon Boat event for its second year.

Treasurer's Report: Phyllis Schaer asked for a motion to approve the Treasurer's Report of Income and Expenses for the month ended March 31, 2010 as presented, moved by Bruce Kemble and seconded by Mark Toussaint. With no discussion the motion was voted with all in favor and Treasurer's Report for month ended March 31, 2010 has been accepted and filed for audit.

Mrs. Schaer reported that she has a call in to Bob Gates regarding the contribution for this year from FirstLight, which has not been received.

Mr. Berger welcomed the guests and gave them a moment to address the CLA.

Equipment & Facilities: Committee Chairman Ed Siergiej advised that that the new engine has been purchased and is on McKee I and the engine from McKee I was installed on the ARK and has worked out well during buoy deployment. All buoys are in. Lake level is at 428.6 – good to have the buoys go in when the water is high. Docks are in at Sherman and docks at the Patrol area will go in at a later date. He reported that the donated servers appear to be missing or misplaced from storage in Danbury and when he has a chance he will go search for them.

Public Awareness: Mark Toussaint reported that the committee is well into their initiatives i.e. new electronic newsletter format, seminar series, electronic publication distribution, CLA Facebook page now has 238 fans and planning is underway for the Clean up and Dragon Boat Race.

Watershed Management: Harold Mayer noted that they had worked on the submittal to FERC and are continuing to work on the preservation of the NU/CL&P property on the lake. He advised the time frame for this is "in his lifetime". He also thanked Gary Dufel who has helped review site plans on waterfront projects. He is very grateful for his work on this.

Public Safety: Rich Stroh reported that Gil Brouillette who had left the Lake Patrol last year (2009) after many years of service will be returning for the 2010 season. Mr. Stroh made a motion to rehire Gil Brouillette to the Lake Patrol, seconded by Bruce Kemble and voted with all in favor.

Bruce Kemble moved that the CLA go into Executive Session to discuss operation procedures of the CLA personnel, seconded by Ed Siergiej. The guests were asked to leave and the delegates and staff of the CLA went into Executive Session at 8:15 PM

Delegates came out of Executive Session at 9:06 PM – there were no motions during the Executive Session just discussion and the recommendations that Mr. Berger will note.

Mr. Berger asked for a motion to ask the CLA attorney to write a letter and place a phone call to the Department of Environmental Protection regarding having an agreement in place, a supervising sergeant this season and inquire where the CLA gets the authority to operate a patrol within seven days or less. Charlie Reppenhagen moved, seconded by Rich Stroh - Discussion. Bob Guendelsberger amended the motion to include that the letter and phone call should be on the same day and that copies of the letter should go to the CLA CEO's and Legislators, Mr. Reppenhagen and Mr. Stroh accepted the amendment. Motion was voted with all in favor.

Mr. Reppenhagen noted that it will be bad if there is no patrol on the lake. Their presence is needed out there. Mr. Berger noted no position until the CLA hears from the DEP. A special meeting will be scheduled to discuss this topic for Wednesday, April 28, 2010 at the CLA New Milford Office.

With no further business to come before the Candlewood Lake Authority, Bruce Kemble moved to adjourn, seconded by Charlie Reppenhagen. Meeting adjourned at 9:15 PM.

Respectfully submitted,



Richard Stroh, Secretary

Frances Frattini, Administrative Coordinator

r/b/s



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Executive Director's Report

April 6, 2010

Larry Marsicano

The following report summarizes activities from February 4, 2010 to March 1, 2010.

RECREATION / PUBLIC SAFETY MANAGEMENT

On March 5th, HB 5241 – AN ACT CONCERNING CANDLEWOOD LAKE was voted out of Environment Committee and was filed with Legislative Commissioners' Office on March 9th; was referred to Office of Legislative Research and Office of Fiscal Analysis on March 16th; was reported out of Legislative Commissioners' Office on March 23rd; and received a favorable report and was tabled for the House Calendar (House Calendar No. 75) on March 23rd. The bill's file number is 104.

As noted in last month's minutes, Executive Committee had requested that the CLAMP's draft General Orders be reviewed by an attorney. Attorney Ted Backer was contacted; we have had several discussions; and he will be providing a legal opinion. I also met with Public Safety to review, comment on, and edit the draft General Orders. A final draft is being edited, formatted and assembled.

SEMINAR / FORUM ON RECREATIONAL BOATING ON CANDLEWOOD

The seminar on Candlewood Lake Boating Recreation, sponsored by the CLA and WCSU was held on March 11th. There were approximately 80 to 100 members of the public there. Presentations were given by CTDEP's Eleanor Mariani, Tim Barry and Larry Marsicano. Most comments indicated that the event was well received.

SHORELINE MANAGEMENT PLAN

The CLA submitted comments on March 24th on the revised Shoreline Management Plan that FERC noticed in late February. Other comments submitted on the SMP came from the CTDEP and the National Park Service.

We attached to our submittal to FERC a report entitled Preliminary Assessment of Structures Below or Near the 449 Contour on Candlewood Lake, CT authored by Ana and Maria Bortoletto of WCSU and Larry Marsicano. Using our GIS and photo inventory of the shoreline, a preliminary inventory of structures below or close to the 440 was created (see first four pages of the report attached).

SHORELINE / WATERSHED MANAGEMENT

On March 18th, we submitted comments to the New Fairfield Conservation / Inland Wetlands Commission regarding 8 Sylvan Road where a cart path is proposed extending from the home, down a steep, rocky slope, below the 440 contour, to the

additionally proposed 450 square foot level yard. Watershed Committee also revisited the Northwest Passway property proposal in Danbury and provided comments on the proposal to the architect.

TECHNICAL COMMITTEE / EURASIAN WATERMILFOIL MANAGEMENT

On March 3rd the Technical Committee (CLA, CTDEP, FirstLight, etc.) met to discuss the report of the Connecticut Agricultural Experiment Station on their mapping of the Eurasian watermilfoil last summer. Prior to the meeting we asked that the report we did on historical drawdowns be revisited at the meeting, which it was. We urged again that on a biennial basis, deep drawdowns should be conducted in a fashion similar to those done between 1985 and 1995 when target depth was achieved by, at a minimum, January 1st and kept there for approximately 60 days to ensure that the optimal conditions occur to manage the milfoil. On March 25th we submitted additional comments clarifying that position (attached). The letter should be attached to the soon to be submitted minutes and report by FirstLight to FERC.

BUDGET MEETINGS

Several of the Sherman Delegates and I met with the Sherman Board of Selectmen to discuss our proposed budget. Recommendations from all five municipalities have been received.

WCSU COLLABORATIONS

We are working with Dr. Mitch Wagener to find students to continue the weevil research this summer.

We are also working with Dr. Theodora Pinou who would like to use the lake and surrounding areas for field trips for her classes. Dr. Pinou also recently met with Bob Gates of FirstLight regarding internships. This collaboration was due, in part, to the CLA reaching out to FirstLight and urging them to support of the NSF grant proposal submitted earlier this year.

Shannon Ring, a student in her junior at WCSU, has started an internship with us. She is currently working on formatting the CLAMP General Orders, compiling and doing some statistical analyses of the water quality data collected over the last several years, and will be archiving important FERC issuances and submittals from CLA, others, and the Licensee.

PROJECT CLEAR

The next scheduled classroom day is Friday, April 16th at WCSU. Abby Peklo and I are scheduled to discuss Project CLEAR at a taping of a Charter Community Access show on April 30th. I will let everyone know when the show is scheduled to air once I know.

OTHER

We have had several inquiries from students from schools other than WCSU about internships.

Preliminary Assessment of Structures Below or Near the 440 Contour on Candlewood Lake, CT

**Ana Bortoletto & Maria Bortoletto, Western Connecticut State University, Danbury, CT
Larry Marsicano, Candlewood Lake Authority, Sherman, CT**

March 22, 2010

Introduction

The largest lake in Connecticut, Candlewood Lake has a surface area of 5,640 acres and over 60 miles of shoreline. The lake was created in 1929 as part of a hydroelectric power generation facility along the Housatonic River. Since its creation, the lake has seen considerable residential development along its shoreline and notable growth of recreational boating on its waters.

The hydroelectric power generation facility is licensed by the Federal Energy Regulatory Commission (FERC) with the most recent license issued to FirstLight Power Generation Services (formerly Northeast Generation Company) back in 2004 (FERC, 2004). As part of its current license, the Licensee was required to create a Shoreline Management Plan (SMP) within 18 months of the issuance of the license. A required component of the SMP was an inventory of existing shoreline development facilities including boat docks, marinas, landings, and bulkheads / shoreline stabilization structures located on project lands. In the case of Candlewood Lake, project lands generally lie between the 440 foot contour (CL&P datum) down to the bottom of the lake. The lake's recreational level is generally between 427 and 429 feet above sea level (CL&P datum).

In the SMP submitted to FERC in 2006 (Northeast Generation Company, 2007) no detailed inventory was provided, but rather a plan to develop one through a registration program. The proposed SMP was subsequently approved, but later rescinded by FERC. The Licensee submitted a revised SMP in July of 2009 (FirstLight, 2009a) which also provided no inventory of shoreline development facilities. Later in 2009 FERC issued a request for additional information to the Licensee again requesting an inventory (FERC, 2009). FirstLight responded to FERC describing a geographic information system (GIS) they were creating to aid the development of an inventory (FirstLight, 2009b).

Back in 2006 the Candlewood Lake Authority created a Candlewood Lake and watershed GIS (Tarsi et. al., 2007) similar to the one described by FirstLight which integrated approximately 2,500 geo-referenced photographs of the entire shoreline taken in the summer and fall of 2006 (see Fig. 1). This GIS was used, as described below, to develop a preliminary assessment and inventory of shoreline development structures.



Figure 1. Sample of the CLA's Lake and watershed GIS system. Green stars represent the approximate locations of the approximately 2,500 photographs of the shoreline taken in the summer and fall of 2006.

Methods

Using the CLA's GIS and 2006 photo inventory of the Candlewood Lake shoreline, an inventory of existing structures below or in close proximity of the 440 foot contour (CL&P datum) was developed through careful examination of each of approximately 2,500 photographs. Structures that were counted included those listed in Table 1. It must be pointed out that there was no way of accurately determining where the 440 contour lie based on the photos. However, structures like docks, decks, patios, and others were generally on the water or just above it and presumably below the 440.

Photographs were organized in the GIS and in Table 1 by town. Photographs taken in 2006 were geo-referenced and added as a layer to the GIS (see Figure 1) as described by Tarsi et al (2007). The hyperlink took was used to open up each of approximately 2,500 photographs. Structures were identified and enumerated on count sheets before moving to and opening up the next photograph. Count sheets were then summarized and data transferred to an Excel spreadsheet. Two researchers worked as a team with one navigating on the GIS while the other keeping count on the count sheets. The research team spent approximately 40 hours (or 80 individual man-hours) developing the inventory.

Results and Discussion

Results of our assessments of shoreline development facilities in 2006 are provided in Table 1 below. A photographic key depicting the first twenty feature types using actual photographs of the Candlewood Lake shoreline are provided in Appendix 1. Private docks and seawalls were the most frequently observed structure followed by lawns and retaining walls. Small docks were counted separately from private docks but in most cases provided a place for the docking of a vessel. Community docks included small to large marinas, including community, municipal, and commercial marinas.

Small structures represented a group of features that ranged in size, but were smaller than sheds and typically on the order of a dog house in size. Most were assumed to be pumps used as part of an irrigation system to irrigate lawns. Raised docks refer to hydraulic lifts attached to docking structure used to lift vessels above the water line while not in use.

Table 1. Results from assessments of the 2006 shoreline photographs of Candlewood Lake.

Feature	Danbury	New Fairfield	Sherman	Brookfield	New Milford	Totals
Private dock	290	440	169	221	176	1296
Seawall	227	332	117	161	148	985
Lawn	140	205	86	167	104	702
Retaining wall	169	222	73	97	121	682
Steps to water	98	147	30	80	55	410
Deck	107	97	49	49	71	373
Buffer planting	78	108	45	47	50	328
Stairs	55	99	50	35	50	289
Shed	82	80	23	43	40	268
Sand beach	54	68	24	40	36	222
Fence	27	63	13	30	24	157
Community dock	28	33	13	35	22	131
Swim platform	16	36	15	14	31	112
Boat ramp	25	39	9	18	15	106
Small structure	14	44	11	21	16	106
Small dock	27	41	6	13	14	101
Cabin	15	36	22	11	17	101
Raised dock	20	30	10	20	6	86
Gazebo	8	11	3	26	9	57
Boat house	4	6	3	3	9	25
Playground	4	6	3	3	5	21
Total	1488	2143	774	1134	1019	6558

The application of a GIS with a photographic inventory of shoreline used to develop an inventory of shoreline development facilities has proved useful. There are some limitations, particularly in determining the boundary of the FirstLight property (440 contour), within which the FERC is requiring an inventory of structures. Also, it is not possible to determine all structures from shoreline photographs since an observable structure may make it difficult to observe a structure behind it. Nonetheless, we have been able to identify over 6,500 features on the shoreline of Candlewood Lake. It will be interesting to compare the results of the FirstLight inventory with ours in the future.

Reference

Federal Energy Regulatory Commission. 2004. Order Issuing New License – Issued June 23, 2004. FERC Issuance No. 20040623-3052. FERC eLibrary - www.ferc.gov/docs-filing/elibrary.asp. Washington, DC. 65 pp

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Tarsi, M., K. Ponak, and L. Marsicano. 2007. Creating a GIS to Monitor the Shoreline of Connecticut's Largest Lake: Candlewood Lake Authority Responsible for Water Quality and Public Safety. ESRI ArcNews Online. www.esri.com/news/arcnews/summer07/articles/candlewood-lake-authority.html. 3 pp



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March 25, 2010

Mr. Bob Stira
FirstLight Energy Resources
20 Church Street
Hartford, CT

Re: March 3, 2010 NPMP Meeting Comments

Dear Bob:

I wanted to make sure I was clear about my position given some of the responses to my observations at the meeting. I think it is apparent that longer duration of deep drawdown improves probability of effective management. The power company's lake level data since 1983 shows that in deep drawdown years between 1985 and 1995 (typically odd number years) the number of days after January 1st when the lake was at or below 420 was 60+ days with the exception of 1992, which was 57 days (See Table 1 in my report). This is regardless of what the deep drawdown goal was, i.e. hit the target by mid December and keep it there for two weeks. That may have been the goal, but nonetheless the lake was at or down below 420 for 60+ days for those deep drawdown years between 1985 and 1995.

As such, the biennial deep drawdowns could/should theoretically be modeled after how the deep drawdown was done between 1985 and 1995, and during the winters of 2003 and 2007 when it worked. Variations of that (e.g. deep drawdowns of 2005 and 2009) are notably less effective. That said I understand that theory and practicality are seldom the same. Factors such as flooding, market considerations, etc play a role and can make the 60+ days below 420 after January 1st impractical. If that is the case, then we should add that variable into our understanding. Perhaps as part of your data collection each year, you can make notes as to when a drawdown schedule is altered because of things like floods, market, etc.

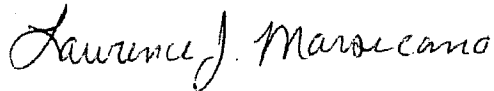
I believe at this point we don't have enough data to be able to target a two week window during deep drawdown years so I am asking that the window be longer as conditions permit (e.g. 2003 and 2007). The work of Dr. Lonergan and Greg Bugbee with soil moisture and temperature data loggers will definitely help fine tune that window, but until we have enough

of that data I would encourage you to attempt to model deep drawdowns after the 1985 to 1995 versions.

I hope your minutes of our meeting will reflect this clarification.

Best regards,

CANDLEWOOD LAKE AUTHORITY



Larry Marsicano
Executive Director



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April 14, 2010
Public Education
Mark Howarth

2010 Dragon Boat Races:

The planning and work for the 2010 Candlewood Lake Dragon Boat Races is in full swing and progressing well. We have added several new members to the planning team and are looking forward to the skills and experience they will be able to lend to the group.

The effort to contact potential sponsors is under way. On April 1st, we mailed out our sponsorship information to area businesses. The change this year is that we have bundled our sponsorships to include the Dragon Boat Races and the Clean Up. We felt that this "one sponsorship for two events" opportunity would simplify the sponsor process for us so that we weren't contacting businesses twice in one year to sponsor two different events and we are able to give our sponsors a better value and increased exposure for their single donation.

The website for the dragon boat race is nearly complete, with just the finishing touches being added to it. This site should provide visitors with everything they will need to know about the race, how to form a team, documents they will need to submit and even an "teammate finder" section where people looking to join a team or teams looking to fill out their boat can post their availability for others to contact them on. We will link directly to the site from our CLA website. We chose to use the Shutterfly site we started last year with the race photos, because it provides a template for us to use that works well for our event needs. To visit the site go to www.candlewoodlakedragonboatrace.shutterfly.com or visit the link coming soon to the CLA home page to bring you directly there.

March Electronic Newsletter:

In March we sent out an electronic newsletter. This newsletter featured an updated layout and graphics, and was created using one of our new pieces of software, Adobe InDesign. Topics covered in this edition of the electronic newsletter were the boat length bill, the announcement of the return of the John Marsicano Memorial Candlewood Lake Clean Up, the Candlewood Lake Dragon Boat Races, soil moisture monitoring on the Lake, fertilizer and Soil Testing Day, 2010 Independence Day Fireworks announcement, and a call for Project CLEAR boat captains.

Microsoft SharePoint:

We have been introduced Microsoft SharePoint as an online collaboration tool for the dragon boat races and we will evaluate the group's feedback to this new program to see if this is something we feel will help us in the planning of this event.

